

Application No.: 09/735,495  
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**Amendments to the Claims:**

Please replace all prior versions, and listings of claims in the application with the following listing of claims.

**Listing of claims**

**Claim 1 (original):** A method of reducing the memory consumption of a retransmission scheme, the method comprising:

transmitting information to a receiver in the form of data blocks using packet-based transmission;

decoding the received data blocks;

compressing failed data blocks, wherein a failed data block is a data block that fails the decoding process;

storing the compressed failed data blocks;

decompressing the failed data blocks;

combining a decompressed failed data block with an associated retransmitted data block; and

decoding the combined data block.

**Claim 2 (original):** The method according to claim 1, wherein compressing failed data blocks comprises:

calculating a scale factor that represents soft values within the failed data block; and

storing the scale factor and a sign of each soft value within the failed data block in memory.

**Claim 3 (original):** The method according to claim 2, wherein said scale factor is an average of absolute values of the soft values in the failed data block.

**Claim 4 (original):** The method according to claim 2, wherein decompressing the failed data block comprises: multiplying the scale factor by the stored soft value signs.

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**Claim 5 (original):** The method according to claim 2, wherein said soft values are logarithmically scaled values.

**Claim 6 (original):** The method according to claim 5, wherein combining a decompressed failed data block with an associated retransmitted data block comprises:

adding the values of the retransmitted data block and the decompressed values of the failed data block.

**Claim 7 (original):** The method according to claim 2, further comprising:

dividing the data blocks into a plurality of sub-blocks, wherein each sub-block is characterized by a substantially constant signal-to-interference and noise-ratio;

calculating a plurality of scale factors, wherein each scale factor represents soft values within a corresponding sub-block; and

storing the plurality of scale factors and a sign of each soft value within the failed data block in memory.

**Claim 8 (original):** A receiver for receiving packet based data transmissions, the receiver comprising:

a soft output detector;

a decoder;

local memory;

logic that compresses failed data blocks and stores the compressed data blocks in said local memory;

logic that decompresses a compressed data block stored in said local memory; and

logic that combines said decompressed data block with an associated retransmitted data block.

**Claim 9 (original):** The receiver according to claim 8, further comprising:

logic that calculates a scale factor that represents soft values within the failed data block; and

logic that stores the scale factor and a sign of each soft value within the failed data block in memory.

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Claim 10 (original): The receiver according to claim 9, wherein said scale factor is an average of the absolute values of the soft values in the failed data block.

Claim 11 (original): The receiver according to claim 9, further comprising:  
 logic that multiplies the scale factor by the stored soft value signs.

Claim 12 (original): The receiver according to claim 9, wherein said soft values are logarithmically scaled values.

Claim 13 (original): The receiver according to claim 12, wherein the logic that combines the decompressed failed data block with the associated retransmitted data block comprises:  
 logic that adds the values of the retransmitted data block and the decompressed values of the failed data block.

Claim 14 (original): The receiver according to claim 8, further comprising:  
 logic that divides the data block into a plurality of sub-blocks, wherein each sub-block contains a constant SINR;  
 logic that calculates a plurality of scale factors, wherein each scale factor represents soft values within a corresponding sub-block; and  
 logic that stores the plurality of scale factors and a sign of each soft value within the failed data block in memory.

Claim 15 (currently amended): A method of compressing data blocks within a receiver of a communications system, comprising:  
 receiving data blocks in the receiver;  
 calculating a scale factor that represents soft values within the received data block;  
 and  
 storing the scale factor and a sign representation of each soft value within the data block in memory, the representation indicating only a sign of each soft value within the received data block.

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Claim 16 (original): The method according to claim 15, wherein said soft values are logarithmically scaled values.

Claim 17 (currently amended): ~~The method according to claim 15, further comprising:~~

A method of compressing data blocks within a receiver of a communications system, comprising:

receiving data blocks in the receiver;

calculating a scale factor that represents soft values within the received data block;

and

storing the scale factor and a sign of each soft value within the data block in memory;

dividing the data blocks into a plurality of sub-blocks, wherein each sub-block is characterized by a substantially constant signal-to-interference and noise-ratio;

calculating a plurality of scale factors, wherein each scale factor represents soft values within a corresponding sub-block; and

storing the plurality of scale factors and a sign of each soft value within the failed data block in memory.